

IN THE CLAIMS:

Please amend claims 1- 29 submitted with Amendments made under Rule 34 as follows:

1. (Currently Amended) ~~Device~~A device for determining the properties of surfaces having:

at least one first radiation means having at least one radiation source which directs substantially collimated radiation at a predetermined angle towards a measurement surface;

at least one second radiation means having at least one radiation source which projects substantially non-collimated radiation onto the measurement surface;

at least one radiation detector means which captures at least a portion of the radiation reflected and/or diffused off the measurement surface and emits at least one measurement signal which is characteristic of the reflected and/or diffused radiation,

~~characterized in that~~ wherein the space above the measurement surface has substantially radiation-absorbing properties.

2. (Currently Amended) ~~Device~~The device according to claim 1, ~~characterized in that~~ wherein the angle formed by a first geometrical connecting axis from the at least one radiation detector means to the geometrical center of the measurement surface and projection of said first geometrical connecting axis to the measurement surface, and preferably also that

angle formed by a second geometrical connecting axis from the at least one first radiation means to the geometrical center of the measurement surface and projection of said second connecting axis onto the measurement surface, are variable.

3. (Currently Amended) ~~Device in particular~~ The device according to at least one of the preceding claims claim 1,

~~characterized in that~~ wherein the distance from said first radiation means to the measurement surface is between 1 cm and 30 cm, preferred between 2 cm and 20 cm, particularly preferred between 2 cm and 7 cm.

4. (Currently Amended) ~~Device in particular~~ The device according to at least one of the preceding claims claim 1,

~~characterized in that~~ wherein substantially non-collimated radiation is emitted onto the measurement surface from a plurality of second radiation means.

5. (Currently Amended) ~~Device in particular~~ The device according to at least one of the preceding claims claim 1,

~~characterized in that~~ wherein said at least one second radiation means comprises at least one radiation diffusor means.

6. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims claim 1,~~

~~characterized in that~~ wherein at least one radiation diffuser means is selected  
from a group of radiation diffuser means comprising radiation diffuser disks, frosted glass  
disks, diffuser films and the like.

7. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims claim 1,~~

~~characterized in that~~ wherein said diffuser surface of said at least one  
radiation diffuser means is mounted at a specified diffuser surface angle relative a  
geometrical connecting axis from said radiation means to the geometrical center of the  
measurement surface, said angle being between 0 degrees and 90 degrees, preferred between  
30 degrees and 90 degrees, particularly preferred between 75 degrees and 90 degrees.

8. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims claim 1,~~

~~characterized in that~~ wherein the spatial orientation and position of the  
diffuser surface of at least one radiation diffuser means is variable relative the geometrical  
connecting axis from said radiation means to the geometrical center of the measurement  
surface.

9. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims~~ claim 1,

~~characterized in that~~ wherein said at least one first and at least one second  
radiation means are positioned in a housing above the measurement surface.

10. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims~~ claim 1,

~~characterized in that~~ wherein the space inside the housing has substantially  
radiation-absorbing properties.

11. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims~~ claim 1,

~~characterized in that~~ wherein said housing is substantially configured  
radiation-proof, preferably light-proof, such that substantially no radiation can enter the  
housing other than such radiation as diffused and/or reflected off the measurement surface.

12. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims~~ claim 1,

~~characterized in that~~ wherein said second radiation means are positioned on a  
geometrical spherical surface or the geometrical surface of a rotational ellipsoid above the  
measurement surface.

13. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims~~ claim 1,

~~characterized in that~~ wherein at least one radiation source is variable in at  
least one radiation parameter selected from a group comprising radiation intensity, radiation  
wavelength, direction of radiation polarization, temporal radiation intensity modulation and  
the like.

14. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims~~ claim 1,

~~characterized in that~~ wherein at least two radiation sources are variable  
independent of each other in at least one radiation parameter.

15. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims~~ claim 1,

~~characterized in that~~ wherein at least one radiation source is selected from a  
group of radiation sources comprising thermal radiation sources, in particular but not  
exclusively light bulbs, halogen light bulbs, coherent and non-coherent semiconductor  
radiation sources, gas discharge radiation sources, lasers and the like.

16. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims~~ claim 1,

~~characterized in that~~ wherein at least two radiation sources and/or radiation  
detector means have different spectral radiation characteristics.

17. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims~~ claim 1,

~~characterized in that~~ wherein the radiation from said first radiation means is  
collimated by at least one radiation directing means.

18. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims~~ claim 1,

~~characterized in that~~ wherein at least one radiation directing means comprises  
at least one radiation directing component selected from a group of radiation directing  
components comprising lens components, micro lens components, micro lens arrays,  
diffracting components, reflector components, in particular but not exclusively parabolic  
reflectors, grating components, volume grating components, holographic components and the  
like.

19. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims~~ claim 1,

~~characterized in that~~ wherein said first radiation means comprises at least one diaphragm means, preferably but not limited to apertured diaphragms positioned in the path of radiation.

20. (Currently Amended) ~~Device in particular~~ The device according to at least one of the preceding claims claim 1,

~~characterized in that~~ wherein said device is preferably movable relative the measurement surface such that the distance between the radiation means and the measurement surface remains substantially constant.

21. (Currently Amended) ~~Device in particular~~ The device according to at least one of the preceding claims claim 1,

~~characterized in that~~ wherein at least one travel measurement means is provided which emits at least one measurement signal which is characteristic of the traveled distance of the relative movement from the device to the measurement surface.

22. (Currently Amended) ~~Device in particular~~ The device according to at least one of the preceding claims claim 1,

~~characterized in that~~ wherein at least one travel measurement means is positioned inside and/or outside the housing.

23. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims claim 1,~~

~~characterized in that~~ wherein at least one coating-thickness measurement means is provided for determining the coating thickness of the measurement surface to be examined comprising at least one coating thickness sensor which emits a measurement signal representative of the coating thickness to be determined.

24. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims claim 1,~~

~~characterized in that~~ wherein at least one coating-thickness measurement means is positioned inside and/or outside the housing.

25. (Currently Amended) ~~Device in particular~~ The device according to  
~~at least one of the preceding claims claim 1,~~

~~characterized in that~~ wherein at least one processor means and one memory means is provided which allow an allocation of the measurement signals of the radiation detector means and/or the measurement signals of the travel measurement means and/or the coating-thickness measurement means to specified locations, in particular but not exclusively to the same location on the measurement surfaces.



26. (Currently Amended) ~~Method~~A method for determining the properties of surfaces in particular using a device according to ~~at least one of the preceding claims~~claim 1,

~~characterized in that~~comprising at least one first radiation means according to ~~at least one of the preceding claims~~claim 1, and wherein

at least one second radiation means according to ~~at least one of the preceding claims~~claim 1 projects at least a portion of the radiation from its at least one radiation source onto the measurement surface ~~and,~~

at least one provided radiation detector means captures at least a portion of the radiation reflected and/or diffused off the measurement surface and emits at least one measurement signal which is characteristic of the reflected radiation,

~~and~~ at least one control means is provided for controlling the capture of the measurement signals of the radiation detector means, and

~~and~~ at least one output means is provided for outputting the at least one measurement result.

27. (Currently Amended) The method according to claim 26,

~~characterized in that~~wherein at least one processor means is provided for evaluating the measurement signals and deriving therefrom at least one parameter which characterizes the properties of the measurement surface and which can be output at least on one output means.

28. (Currently Amended) ~~Device in particular~~ The method according to at least one of the claims ~~26 and 27~~ claim 26,

~~characterized in that~~ wherein at least one control means is provided for controlling the capture of the measurement signals from the radiation detector means and/or the travel measurement means and/or the coating-thickness measurement means and stores same in at least one provided memory means.

29. (Currently Amended) ~~Device in particular~~ The method according to at least one of the claims ~~26, 27 and 28~~ claim 26,

~~characterized in that~~ wherein the radiation from said second radiation means is substantially reflected and/or diffused only once off the measurement surface and/or off a surface substantially parallel thereto.